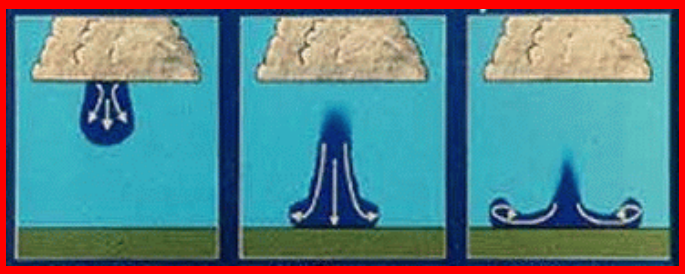
The Microburst



The Official Newsletter of the Tri-State SKYWARN Program
... Published by the National Weather Service, Upton NY ...

Volume 3, Number 1
July 2003

Summer 2003 Edition

The very soggy and cool Spring...

After the snowier than normal winter of 2002-2003, Mother Nature hasn't really given us much of a break. Central Park broke the all-time record monthly rainfall total for June, with a final total of 10.27" of rain. That broke the old record of 9.78" set back in June of 1903. Normal June rainfall is 3.84"...which we surpassed this June...by the 4th!

This June also ended up nearly 3° cooler than normal (68.3° vs. normal of 71.1°). The heat at the end of the month cut into, what was at one time, an average monthly temperature running nearly 6° below normal. The coolest June of record was also in 1903, with an average temperature of 64.2°.

The 3-month period from March through May is traditionally considered to be "Meteorological Spring," and you might be surprised to know that as lousy as May seemed, the "Spring" only averaged 1.9 degrees below normal. While May ended up 1.26" wetter than normal, the entire Spring ended up 1.50" inches below normal.

All of this after a snowier than normal Winter...49.3" of observed snowfall vs. 22.4" of normal snowfall...

Spring Training 2003

Our SKYWARN "Spring Training" was scaled back compared to previous years in the Tri-State Region, in terms of the number of classes conducted. The turnover in staff at NWS Upton was the culprit...we've been short 1 or 2 forecasters for quite a few months now. Even so, Gary, John and Scott managed to train over 400 spotters, including 186 Advanced Spotters. (To those spotters, your certificates should have arrived recently.)

We are done with training classes for this spring and summer. However, we will probably be able to schedule a few classes in the fall (mid-September through late October), depending on Mother Nature, our schedule here at the office, and class demand. Our top priority for any fall classes will be areas that have not had a class in a number of years, or for Advanced Classes. We're looking for at least 25 people in order to schedule a class. If your group would be interested in hosting a class, please contact Scott KC2JCB before September 1st.

HAM RADIO HAPPENINGS

This edition of the Microburst will have 2 feature sections...one dedicated to Amateur Radio, and one to Summer Weather.

WX2OKX ... the Upton Amateur Radio Station

At long last, and after 1 minor paperwork "glitch," the NWS Upton amateur radio station finally obtained the call sign WX2OKX on June 9th. Thanks to Paul Beeman W2PB, our Suffolk County SKYWARN Coordinator, for serving as trustee of the station.

We received word recently that a new radio tower is in the works for WX2OKX and the NWS Upton office. The taller antenna tower should help with communicating with some of our more distant friends, especially in the lower Hudson Valley, and maybe even Northern New Jersey and New York City. Next up... obtaining some HF radio equipment (and an upgrade in license for a certain Skywarn Program Leader).

New Skywarn Coordinators

We're pleased to announce the appointment of Mike Snuffer KC2JHU as our new Hudson County NJ County Coordinator. He replaces Rich Krajewski KB2CRD, who recently stepped down as Coordinator. Welcome Mike, and thanks to Rich for all of his help.

Ken Frey KB1HQE is our new Deputy Coordinator for Northern Fairfield County CT. Welcome to Ken as well.

We still have a few vacancies to fill, and hopefully, we can get them filled before the Fall Coordinators Meeting. That meeting now looks like it will be in mid-November.

SkywarnPrepared

This spring marked the official start to the *SkywarnPrepared* program, with awards being given out to 4 very deserving groups. *SkywarnPrepared* was developed to both recognize those groups that actively support the Tri-State Skywarn program, and to help further promote the program.

The 10-70 Repeater Association, based in Clifton NJ, not only received the very first *SkywarnPrepared* Award, they also were the first group to receive our "Advanced" designation, the *SkywarnActive* Award. The 10-70 Repeater Association has been very active in the Tri-State Skywarn Program for a number of years now, and they also hold the distinction of having at least 6 Coordinators or Deputy Coordinators among their membership. They received both awards in March during their monthly Club Meeting at which I Scott KC2JCB was the guest speaker. Congratulations to Paul KC2CJW and the entire 10-70 crew!

Orange County ARES/RACES was the first ARES-related group to receive the *SkywarnPrepared* Award. They received their award at the Advanced Spotter Training Class sponsored by the Rockland Repeater Association (RRA) in Pomona NY in May. They are always ready for whatever Mother Nature dishes out, so our congratulations go out to Steve N2UBP and the Orange County crew.

And not to be outdone on "their own turf," the Rockland Repeater Association also received a *SkywarnPrepared* Award at the May Advanced class. John K2CIB, Joe N2LF and the entire RRA are to be congratulated as well. Rumor has it that they are planning on applying for the *SkywarnActive* award too.

And finally, the Greater Norwalk (CT) Amateur Radio Club (GNARC) was the first Connecticut based group to receive the *SkywarnPrepared* award. They received their award at the Advanced Class in late

May. Congratulations to Phil WX1CT and the GNARC team.

Applications for the *SkywarnPrepared* and *SkywarnActive* awards can be submitted to Scott KC2JCB at any time. The web links for award information and applications can be found near the end of the newsletter.

Ham Radio ... More Than Just SKYWARN and "Ragchewing"

Ever since 9/11, Homeland Security is a phrase we hear every day now. But did you know that Amateur Radio has been a major part of that, even before the phrase became so prevalent in our lives? Amateur radio operators provided much of the emergency communications in and around New York City on 9/11 and for weeks after. A number of local hams (and we're proud to say, SKYWARN spotters), including Tom Carrubba KA2D, Section Emergency Coordinator for the New York City-Long Island area, and Charlie Hargrove N2NOV, District Emergency Coordinator for the 5 Boroughs, led the effort to provide this most valuable service.

Hams provided communications at the other 9/11 disaster sites, as well as communications during the Columbia Shuttle disaster. And of course, hams provided real-time SKYWARN reports and emergency communication services during the week-long tornado outbreak in the central U.S. back in early May.

However, Amateur Radio is more than just emergency communications during local, regional or national emergencies. Hams also provide community service during events such as the Boston and New York City Marathons, bike tours and races such as the Bike-Boat-Bike event in early June on eastern Long Island, and other public service events too numerous to mention.

And, of course, there's contesting and just plain old "ragchewing" (chatting), whether it be on local repeaters (short distance) or across the world via high frequency transmissions.

ARRL and the Citizen Corps

The American Radio Relay League (ARRL, amateur radio's national membership organization) is now an affiliate program of Citizen Corps, a Department of Homeland Security (DHS) initiative to enhance public preparedness and safety. ARRL President Jim Haynie, W5JBP, signed a formal Statement of Affiliation between DHS and ARRL on June 21st.

"You are there. You are part of that very first response when it happens locally,' especially in the initial stages of an emergency or disaster," Liz DiGregorio, Citizen Corps Liaison to the White House, told the overflow audience at the signing ceremony. She urged amateurs to explore ways to expand their role in the community beyond being the last resort when other communication systems fail. "You need to show your community that you're engaged," she said.

Among other things, the affiliation statement calls on DHS and ARRL to raise public awareness of Amateur Radio as a safety resource. In addition, DHS and ARRL will cooperate in providing training and accreditation for Amateur Radio emergency communications and promote the formation of local Citizen Corps councils.

Portions of this article courtesy, ARRL Bulletin ARLB041, American Radio Relay League, Newington CT.

So, How Can I Get Involved in Ham Radio?

The simple answer is, just ask. There are plenty of Amateur Radio Clubs, hams, and those hams in various Club and ARRL leadership positions that would be more than happy to help you get started.

To get your Technician level license (the "entry level" exam), you simply need to take a 35-question exam that includes topics such as basic regulations, operating practices, and electronics theory, with a focus on VHF and UHF applications. No Morse Code is necessary for your Technician level license...that's part of the upgrade to General. Many local clubs offer classes to help you prepare for the exams.

The link below is the ARRL "Getting Started" page with plenty of information.

http://www.arrl.org/hamradio.html

Who Are Ham Radio Operators?

Ham radio operators come from all walks of life. They are teachers, politicians, media personalities, meteorologists, performers, company CEOs...just to name a few. Hams are also of all ages...from well into their retirement years, to school-aged children.

Ever wondered who some famous hams are? You might be surprised... Here's just a small sample... (SK stands for "Silent Key," or deceased.)

- Walter Cronkite WB2GSD (CBS News)
- Matt Ahearn KB2PNN (NJ Assemblyman)
- George Pataki K2ZCZ (Governor, NY)
- Patti Loveless KD4WUJ (Singer)
- Joe Walsh WB6ACU (Guitarist, the Eagles)
- Marlon Brando KE6PZH (actor)
- (SK) U.S. Senator Barry Goldwater K7UGA
- Gary Zimmerman N7ZIM (retired football player)
- Col. Susan Jane Helms KC7NHZ (1st female crew member aboard and 1st female ham to operate from the International Space Station)
- (SK) King Hussein of Jordan JY1
- Queen Noor of Jordan JY1NH

All you need is an interest in the hobby. If you have any questions regarding amateur radio, just drop me (Scott) or any ham that you know a line...we'll point you in the right direction.

EMERGENCY COMMUNITY RESOURCE

(Ed. Note:) This is just one example of Amateur Radio's role in local emergency communications.

"Mr. Mayor, as a result of the storm, the electricity should be restored within 24 hours, the water, sewer and natural gas pipes have not been disrupted, BUT, the telephone system may be down for a week."

"A week?" the Mayor looked at his Emergency Management Coordinator. "A week? What about cell phones, pagers, fax machines and computers?"

"They are also affected." The Mayor then turned to his Chief of Police. "Chief, how are the police communications?"

"We can communicate with our cars and portables, but the Statewide Police Emergency Network System is jammed with transmissions. We can't get through to the county, State Police, or other departments."

"Our county Mutual Aid frequency is also jammed," volunteered the Fire Chief. "If we need to call other fire departments, we will have a problem."

"We are also in bad shape," the Ambulance Corps Captain stated. "The Hospital Radio System is overloaded, and even the countywide Life Support Communications is overloaded. And, of course, we can't call them on the phone!"

The Mayor turned to his EMC and asked, "What do you suggest?"

"We are activating our Amateur Radio Operators. By stationing them here in the Municipal Building, the hospital and police headquarters, we can establish communications with agencies outside of the community. Shortly, they will be in

contact, via Ham Radio, with the county and state Offices of Emergency Management."

Temporarily adjourning the meeting of his Local Emergency Planning Committee, the Mayor requested that each department head station a member of his agency in the Emergency Operations Center.

As the Mayor and the department chiefs walked out to the parking lot to return to their own offices, they heard a generator running and saw several vehicles sitting in the parking lot, each with large antennas on them and unusual license plates. The Hams had arrived.

The EMC had activated his RACES (Radio Amateur Civilian Emergency Service) operators, who fall under the jurisdiction of the New Jersey State Police Office of Emergency Management. The municipality holds an Federal Communications Commission RACES license and each ham is also licensed by the FCC. They train twice a month and maintain their own radio equipment. Some, who were radio operators in the military, are veterans. The American Radio Relay League (ARRL), has also certified these volunteers as ARES (Amateur Radio Emergency Services) radio operators and each has completed a series of emergency communication courses. They train once a year as a group, at an annual event known as Field Day, held the fourth weekend of each June, in which they operate for at least 24 hours, with emergency power and portable antennas.

In addition, many of them are Skywarn Spotters. They take courses offered by the NWS, identify hazardous weather and report it to the NWS and other public safety agencies. When the worst occurs in terms of violent weather, amateur radio operators are frequently the only ones to get reports of casualties and damage, which they then disseminate to disaster organizations.

Finally, most of the ham operators are participants in the National Traffic System, another ARRL program. They practice sending and receiving messages or "traffic," in 25 words or less, to and from any place in the world. They are taught to prioritize the messages and assure delivery, even under the most adverse of conditions.

What is the profile of an Amateur Radio Operator and do these individuals reside in every community? How are they organized and supervised? Why would anyone want to spend his own time and money, on what could be a very demanding and stressful "hobby"? Finally, do they expect anything back from their community?

In the Borough of Ramsey, Bergen County, there are 42 amateur radio operators affiliated with the Ramsey Office of Emergency Management. They are police officers, firefighters, hospital professionals, and EMTs. and include the Emergency Management Coordinator and one of his deputies. They're also computer systems managers, salesmen, technicians and businessmen. One of the current councilmen is a Ham Operator.

They range in age from high school students to retirees. Some turn on their radios infrequently, while others have made contact with every country in the world. Some like to stay in their radio room, or "shack," while others like to go out in the field for public service events, such as bike-a-thons, DARE programs and 10K runs. Some join local Search and Rescue Teams.

The EMC is appointed by the Mayor and Council. He, in turn, appoints a Radio Officer, and they are responsible for the organization and supervision of all radio personnel. The municipality owns the radio equipment in each Emergency Operations Center. Most EOC's are located in the Municipal Building or Public Safety Headquarters.

Each Ham must study and pass FCC examinations and maintain their license. They also have to file applications to be approved for the RACES and ARES programs and are aware that even with

safety as a paramount consideration, the operations may become dangerous at times. As an example, the Ramsey Emergency Operations Center continued to operate during Tropical Storm Floyd, even as flood waters were being pumped from it.

The ham operators, to a man or woman, will tell you that they volunteer their time for the satisfaction of serving the community, their family, neighbors, and friends. They have a skill which normally is used recreationally, but which could be and has been life saving when the need arises. Without proper communications in almost any endeavor, chaos quickly ensues.

Emergency Amateur Radio Communications can't replace existing public safety radio operations. However, in the absence of normal broadcasting operations or disruptions in telephone service, it is an immediate and short-term solution. Following the attacks on the World Trade Center, the Ramsey Emergency Operations Center was "on the air" within 20 minutes and began receiving amateur radio messages from lower Manhattan. The ham operators took hundreds of "good & welfare" messages over a three-day period and then, for several weeks, sent hams into New York City to assist in the ham operations there.

The American Red Cross and Salvation Army also use ham radio in their disaster efforts. Many chapters have their own amateur radio organization and radio equipment. It is unusual to tour any type of emergency facility, including many hospitals, with no amateur radio station available for licensed personnel to operate. The Standard Operating Procedures are the same and the ham protocol is similar, to allow for effective communications.

What do the ham operators expect in return for their services? Very little, except for the satisfaction of giving back something, and occasionally, being part of the "action."

A federally licensed home Amateur radio station owned and operated by a licensed "Ham" is a place of training and education for hams and would-be hams that enhance a community's ability to train for and respond to disasters. These community volunteers are expressly prohibited from use of the station for pecuniary gain. There can be a huge personal investment (often over $5,000) to equip such a facility in one's home and out in the backyard.

A properly equipped station and an effective antenna system are comparable to a local fire house with modern firefighting and HAZMAT equipment with the skilled instructors to pass on the art. The volunteer's station and tower become the center for attracting and training new volunteers in state of the art communications techniques, emergency protocols, and training procedures. The well-equipped Amateur's home station becomes a valuable community asset and the focal point where the values of community service and high-tech skills are passed on to the next generation of hams.

In many ways, a ham's "shack" is like the local firehouse. This is where the volunteer operator trains. It is there that our potential volunteer spends most of his or her time, honing the communications skills that will be brought into play when there is a community emergency. Training nets are used to practice for real emergencies.

Hams have always stood ready to help, through all of the years of the Cold War, and as mentioned above, after the 9/11 attacks, not only in New York City, but also in Washington, DC and in western Pennsylvania. They will be a vital part in the future to Homeland Defense, Domestic Preparedness, and any response to terrorism.

Excerpts from original article written by:
Mike Adams, WA2MWT, Emergency Management Coordinator for the Borough of Ramsey NJ,
Steve Mendelsohn, W2ML, ARRL Hudson Division Vice Director, and Bill Hudzik, W2UDT, ARRL Northern NJ Section Manager.

SUMMER WEATHER

With the summer of 2003 well underway, now is a good time to review some summer weather information and safety tips.

Heat Wave!

Prolonged periods of heat and humidity can take their toll, even on the healthiest of people. So, it's important to know of the terms that are used during periods of hot weather, as well as what to do to protect yourself from the heat.

Definitions...

Heat wave: Prolonged period of excessive heat and humidity. Your National Weather Service defines a heat wave as 3 or more days in which the temperature reaches at least 90°F.

Heat Index: How hot it really feels with the relative humidity factored in (the apparent temperature). Exposure to full sunshine can increase the heat index by up to 15°F.

Sunburn: Redness and pain. In severe cases, swelling of skin, blisters, fever, headaches.

First Aid: Ointments for mild cases if blisters appear and do not break. If breaking occurs, apply dry sterile dressing. Serious, extensive cases should be seen by a physician.

Heat Cramps: Painful spasms usually in muscles of abdomen or legs. Heavy sweating.

First Aid: Firm pressure on cramping muscles, or gentle massage to relieve spasm. Give sips of water. If nausea occurs, discontinue use.

Heat Exhaustion: Heavy sweating, weakness, skin cold, pale and clammy. Pulse thready. Normal temperature possible. Fainting and vomiting.

First Aid: Get victim out of sun. Lay down and loosen clothing. Apply cool, wet cloths. Fan or move victim to air conditioned room. Sips of water. If nausea occurs, discontinue use. If vomiting continues, seek immediate medical attention.

Heat Stroke (Or Sunstroke): High body temperature (106°F or higher). Hot dry skin. Rapid and strong pulse. Possible unconsciousness.

First Aid: **HEAT STROKE IS A SEVERE MEDICAL EMERGENCY. SUMMON EMERGENCY MEDICAL ASSISTANCE OR GET THE VICTIM TO A HOSPITAL IMMEDIATELY. DELAY CAN BE FATAL.** Move the victim to a cooler environment. Reduce body temperature with cold bath or sponging. Use extreme caution. Remove clothing, use fans and air conditioners. If temperature rises again, repeat process. Do not give fluids. Persons on salt restrictive diets should consult a physician before increasing their salt intake.

Heat Wave Safety Tips

Slow down. Strenuous activities should be reduced, eliminated, or rescheduled to the coolest time of the day. Individuals at risk should stay in the coolest available place, not necessarily indoors.

Dress for summer. Lightweight light-colored clothing reflects heat and sunlight, and helps your body maintain normal temperatures.

Put less fuel on your inner fires. Foods (like proteins) that increase metabolic heat production also increase water loss.

Drink plenty of water or other non-alcohol fluids. Your body needs water to keep cool. Drink plenty of fluids even if you don't feel thirsty. Persons who (1) have epilepsy or heart, kidney, or liver disease, (2) are on fluid restrictive diets or (3) have a problem with fluid retention should consult a physician before increasing their consumption of fluids.

Do not drink alcoholic beverages.

Do not take salt tablets unless specified by a physician.

Spend more time in air-conditioned places. Air conditioning in homes and other buildings markedly reduces danger from the heat. If you cannot afford an air conditioner, spending some time each day (during hot weather) in an air conditioned environment affords some protection.

Don't get too much sun. Sunburn makes the job of heat dissipation that much more difficult.

Check on the elderly, children, pets, and those with health ailments frequently.

For more information, check out these web links...
http://www.nws.noaa.gov/om/brochures/heatwave.pdf
http://www.redcross.org/services/disaster/keepsafe/readyheat.html

Safe Boating Tips for the Summer...

You can never be too safe on the water. Here's some safety tips for the boaters...

While on the water, stay alert. . .

- Check NOAA Weather Radio for latest warnings and forecasts.
- Watch for signs of approaching storms:
  - Dark, threatening clouds that may foretell a squall or thunderstorm
  - A steady increase in winds or seas
  - Lightning flashes.

- An increase in wind opposite in direction to a strong tidal current may lead to steep waves capable of broaching a boat.
- Heavy static on your AM radio may be an indication of nearby thunderstorm activity.
- If a thunderstorm is approaching, head for shore if possible. Get out of your boat and away from the water. Find shelter immediately.
- If a thunderstorm catches you while afloat, remember that gusty winds and lightning pose a threat to safety.
  - Put on your personal flotation device and prepare for rough seas.
  - Stay below deck if possible.
  - Stay away from metal objects that aren't grounded to the boat's protection system.
  - Don't touch more than one grounded object at the same time (or you may become a shortcut for electrical surges passing through the protection system).

Marine Definitions…

- **Special Marine Warning:** Observed or forecast winds of 34 knots or more associated with a squall or thunderstorm and expected to last for 2 hours or less.
- **Small Craft Advisory:** Observed or forecast winds of 25 to 33 knots and/or seas of at least 5 feet. Issued up to 12 hours ahead of conditions.

...The following are issued up to 24 hours ahead of conditions...

- **Gale Warning:** Observed or forecast winds of 34 to 47 knots.
- **Storm Warning:** Observed or forecast winds of 48 knots or greater.
- **Tropical Storm Warnings:** Observed or forecast winds of 34 to 63 knots associated with a tropical storm.
- **Hurricane Warning:** Observed or forecast winds of 64 knots or higher associated with a hurricane.

For more safe boating information, check out...
http://www.nws.noaa.gov/om/brochures/safeboat.htm

Severe Weather Safety Tips...

(from http://www.nws.noaa.gov/om/brochures/ttl.pdf)

Lightning Safety Rules

- Postpone outdoor activities if thunderstorms are imminent. This is your best way to avoid being caught in a dangerous situation.
- Move to a sturdy building or car. Do not take shelter in small sheds, under isolated trees, or in convertible automobiles. Stay away from tall objects such as towers, fences, telephone poles, and power lines.
- If lightning is occurring and a sturdy shelter is not available, get inside a hard top automobile and keep the windows up. Avoid touching any metal.

- Utility lines and metal pipes can conduct electricity. Unplug appliances not necessary for obtaining weather information. Avoid using the telephone or any electrical appliances. Use phones ONLY in an emergency.
- Do not take a bath or shower during a thunderstorm. Turn off air conditioners. Power surges from lightning can cause serious damage.

If You Are Caught Outdoors and No Shelter Is Nearby...

- Find a low spot away from trees, fences, and poles. Make sure the place you pick is not subject to flooding.
- If you are in the woods, take shelter under the shorter trees.
- If you feel your skin tingle or your hair stand on end, squat low to the ground on the balls of your feet. Place your hands over your ears and your head between your knees. Make yourself the smallest target possible and minimize your contact with the ground. DO NOT lie down.
- If you are boating or swimming, get to land and find shelter immediately!

Remember, if you can hear thunder – you are close enough to be struck by lightning! A good rule to remember...wait 30 minutes after last hearing thunder before venturing back outside.

Tornado Safety Rules

- In a home or building, move to a pre-designated shelter, such as a basement.
  - If an underground shelter is not available, move to a small interior room or hallway on the lowest floor and get under a sturdy piece of furniture. Put as many walls as possible between you and the outside.
- Stay away from windows.
- Get out of automobiles.
  - Do not try to outrun a tornado in your car; instead, leave it immediately for safe shelter.
- If caught outside or in a vehicle, lie flat in a nearby ditch or depression and cover your head with your hands.
- Be aware of flying debris. Flying debris from tornadoes causes most fatalities and injuries.
- Mobile homes, even if tied down, offer little protection from tornadoes. You should leave a mobile home and go to the lowest floor of a sturdy nearby building or a storm shelter.

Occasionally, tornadoes develop so rapidly that little in the way of advance warning is possible. Remain alert for signs of an approaching tornado such as a dark, often greenish sky, large hail, or a loud roar similar to a freight train.

Flash Flood Safety Rules

- Avoid walking, swimming, or driving in flood waters.
- Stay away from high water, storm drains, ditches, ravines, or culverts. If it is moving swiftly, even water six inches deep can knock you off your feet.
- If you come upon flood waters, stop, turn around, and go another way. Climb to higher ground.
- Do not let children play near storm drains.

Summer Weather SKYWARN Reporting Criteria...

(from http://www.erh.noaa.gov/okx/Skywarn/warm_criteria.html)

HIGHEST PRIORITY/Life Threatening Criteria...please contact the NWS by phone or radio.

- Any deaths or injuries associated with hazardous weather.
- Any TORNADO or WATERSPOUT.

Other High Priority/Life Threatening Criteria

- Funnel or wall clouds.
- Clusters of "Virga" that expand as they descend beneath the cloud base.
- Thunderstorms with wind gusts of at least 58 mph, or that cause structural damage to homes, power lines, or whole trees.
- Hail 3/4 inch in diameter (about the size of a penny) or greater.
- Flooding of rivers or streams into homes or industries.
  - Stream, river or poor drainage urban flooding which make roadways impassable.
- Rainfall reports
  - Following a short (less than 1 hour) torrential downpour, e.g., 0.7 inches in 15 minutes., 1.2 inches in 20 minutes.
  - 2 inches of rain in 3 hours.
  - 1 inch of rain or more in an hour (urban areas).

Other Priority Items

- Thunderstorm gusts of 40-57 mph.
  - These are strong enough to down tree limbs.
- Hail of any size less than 3/4 inch in diameter.
- Event total rainfall.
- Rises of streams or rivers to bankfull condition.

During Tropical Storm or Hurricane Warnings...

- Please report only the Life Threatening Criteria listed above.
- Report any wind gusts 58 mph or greater.
- Any KNOWN storm surge inundations of coastal areas.
  - Never go to the shore to investigate it yourself, and EVACUATE immediately if told to do so by Emergency Management Personnel.
- The highest wind gust during the tropical storm/hurricane.
- The lowest barometric pressure and time it occurred.
- Event total rainfall.

"10 Questions ..."

Hope you were paying attention at that Basic Spotter Training Class...

1. An "overshooting top" depicts where what feature of a thunderstorm is found?
2. A severe thunderstorm can produce winds in excess of ___ mph, ___ inch diameter hail, and/or a _____.
3. A shelf cloud is associated with what feature of a thunderstorm?
4. Name 3 possible sources of lift.
5. A microburst is (smaller/larger) than a macroburst...typically ____ miles or (smaller/larger) in area.
6. Fast flowing water of ____ inches can be enough to sweep you off your feet.
7. Name the state in the U.S. that typically receives more lightning than anywhere else.
8. When will a hailstone finally fall out of a cloud?
9. Assume that a tornadic thunderstorm is moving northeast. What direction (and distance) should you be from the storm to have the safest viewing angle of said storm?
10. What should you look for to determine whether a funnel cloud has become a tornado?

Want to check your answers? Email your responses to Scott KC2JCB and he'll send you "your grade."

Parting Shots

I have had the opportunity to check in on a number of the area Skywarn, ARES and Amateur Radio Club Nets over the past few months. Let me take this opportunity to thank the various Coordinators and Net Control Stations for their excellent work... and not just on Skywarn nets. I have tried to hit as many as I could over the past few months...be it club nets, Skywarn nets or ARES nets, in part to promote the Skywarn program. I have found them all to be very supportive of Skywarn. My thanks to all for allowing me to take a few minutes and promote the program on your nets. (By the way, it's well worth the occasional "ribbing" I take about the weather.)

I had the chance to check into the Bergen-Passaic-Hudson Monday Night Skywarn Net on the W2PQG 146.700 repeater while in New Jersey for the Advanced Class in Scotch Plains in May, and again very recently, when band conditions allowed me to hit the repeater from WX2OKX (NWS office). A most excellent and professionally run net by all...keep up the good work.

I've also been able to check into the Thursday night New Haven/Middlesex County Skywarn/ARES net on the N1LFE 147.505 repeater on several occasions. (It helps to live right across the Sound from the repeater!) Glenn N1HAW and Dave N1YVV run a very good net up there as well.

There are plenty of other non-Skywarn nets as well. I encourage all of our amateur radio friends to check into and support all of the various nets in the area. And, for our coordinators, if you don't already have a regular Skywarn Training Net in your county, why not give one a try?

We are looking into developing a wide area Coordinators Net for our area. Once we find a repeater or linked repeater system with a wide enough coverage area to get to most or all of our area, we will begin this net as well. More to come...as we may have found one.

Well, that's it for this rather lengthy edition of the Microburst. Remember, if you have questions, or ideas for articles for the next Microburst (currently scheduled for sometime in the fall), just drop me a line.

73 de Scott KC2JCB.

To Contact Us...

Via "Snail" Mail...

National Weather Service
Attn: SKYWARN
175 Brookhaven Ave., Building NWS-1
Upton, NY 11973

Via Phone (non-spotter reports)...

(631) 924-0517
Extension 412...
Skywarn Information Box and
Class Registration Voice Mail Box

Via E-Mail...

All Spotter Information Updates
okx.skywarn@noaa.gov
Or "snail mail" to Scott at above address.

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Regional SKYWARN Coordinator
bob@gigdot.net

Submitting Spotter Reports...

Via E-Mail... okx.spotters@noaa.gov

Upton Web Page Reporting Form...
http://www.erh.noaa.gov/okx/report.html

800 Number...
(Sorry, we can't put it here. If you are a current spotter and need the number, email or call Scott and he'll send it to you!)

Web Links...

NOAA Home Page
http://www.noaa.gov

NWS Homepage
http://www.weather.gov

NWS Brochures Page
http://www.nws.noaa.gov/om/brochures.shtml

Safe Boating Information Brochure
http://www.nws.noaa.gov/om/brochures/safeboat.htm

NWS Heat Wave Brochure
http://www.nws.noaa.gov/om/brochures/heatwave.pdf

American Red Cross Heat Brochure
http://www.redcross.org/services/disaster/keepsafe/readyheat.html

NWS Upton NY
http://www.erh.noaa.gov/okx/

NWS Upton Skywarn Page
http://www.erh.noaa.gov/okx/skywarn.html

SkywarnPrepared Information
http://www.erh.noaa.gov/okx/Skywarn/prepared.html

SkywarnPrepared Application
http://www.erh.noaa.gov/okx/Skywarn/skywarn-rec-app.pdf

Skywarn Summer Reporting Procedures
http://www.erh.noaa.gov/okx/Skywarn/warm_criteria.html

ARRL "Getting Started" Page
http://www.arrl.org/hamradio.html